UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/742,623	12/19/2003	Jay C. Hsu	KCX-797 (18372)	3984

22827 7590 08/24/2005

DORITY & MANNING, P.A.
POST OFFICE BOX 1449
GREENVILLE, SC 29602-1449

EXAMINER	
COTTON, ABIGAIL MANDA	

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/742,623	HSU, JAY C.	
	Examiner	Art Unit	
	Abigail M. Cotton	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/19/03, 3/22/04, 5/14/04 and 7/25/05*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) *19-48* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/22/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-48 are pending in the application as of the response mailed on July 21, 2005, with claims 19-48 being withdrawn from further consideration as being drawn to a non-elected invention.

Election/Restrictions

Applicant's election without traverse of the claims of Group I, namely claims 1-18, in the reply filed on July 21,2005 is acknowledged. Claims 19-48 are hereby withdrawn from further consideration as being drawn to a non-elected invention.

The restriction requirement is deemed proper and is made FINAL.

Specification

The disclosure is objected to because of the following informalities: the 6,504,412 patent number disclosed for the Schroeder reference on page 4 of the specification is incorrect. The correct patent number is 6,503,412.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,503,412 to Wen Schroeder, issued January 7, 2003, in view of WO 02/41869 to Hsu et al, published May 30, 2002.

Schroeder teaches applying a softening composition to a fibrous web, such as tissue having cellulosic fibers (see abstract and column 1, lines 37-49, in particular.) Schroeder teaches that the softening composition comprises up to 40% by weight of a silicone polymer, up to about 20% by weight of a silicone polyether, up to about 20% by weight of a softness enhancing agent (an emollient), and up to about 40% by weight of solvent (see abstract, in particular.) Schroeder teaches that the silicon polymer can be a silicon quaternary salt having a chemical structure that corresponds to the silicon quaternary ammonium compounds recited in claim 3 (see column 3, lines 24-65, in particular.) Schroeder also teaches that the silicone polyether can be a silicone dimethicone copolyol derivative having a chemical structure that corresponds to the silicon glycol compounds recited in claim 2 (see column 4, lines 11-55, in particular.)

Schroeder also teaches that the solvent can be water (see column 13, lines 39-48, in particular.) Schroeder also exemplifies compositions having the silicon quaternary ammonium and silicon glycol compounds (see Examples 1 and 2, in particular.)

Schroeder teaches that a suitable amount of the silicone polymer, such as silicon quaternary ammonium compounds, can be from about 15% to about 20% (see column 4, lines 1-6, in particular), which is considered to meet the limitation of being from "about "0.01% to "about 20% by weight as recited in claim 1. Schroeder teaches that a suitable amount of the silicone polyether surfactant, such as the silicone glycol, is from about 5% to about 15% by weight (see column 5, lines 12-18, in particular), which is considered to meet the limitation of being from "about" 0.01% to "about" 20% by weight, as recited in claim 1. Schroeder further teaches that the softness-enhancing agent (emollient) can be present in an amount of from about 5% to about 15% by weight (see column 13, lines 30-38, in particular), which is considered to meet the limitation of being from "about" 0.01% to "about" 20% by weight as recited in claim 1 and from "about" 0.01% to "about" 10% by weight as recited in claim 5. Schroeder also teaches that the solvent, such as water, can be present in an amount up to about 40% (see abstract and column 13, lines 38-48, in particular), which is considered to meet the limitation of being in an amount of greater than "about" 40% as recited in claim 1.

Regarding claim 16, Schroeder teaches that the composition can comprise an anti-microbial agent (see column 15, lines 57-67, in particular.)

Regarding claims 17-18, Schroeder teaches that the basis weight of the tissue can be between about 10 to about 35 grams per square meter (see column 18, lines 26-36, in particular), which is considered to meet the limitation of being between "about" 10 to "about" 200 grams per square meter as in claim 17, and between "about" 15 to "about" 100 grams per square centimeter as in claim 18.

Schroeder does not specifically teach that the softening composition is incorporated into the paper-based product at an add-on level of between about 0.1% to about 10% by weight, as recited in claim 1.

Hsu et al. teaches a paper product having a lotion thereon that imparts benefits to the skin (see abstract, in particular.) Hsu et al. teaches that a suitable add-on level of the lotion can be between about 1% to about 15 % by weight (see abstract, in particular), which is considered to meet the limitation of being incorporated in an amount of from "about" 0.1% to "about" 10% by weight as recited in claim 1.

Accordingly, one of ordinary skill in the art at the time the invention was made would have found it obvious to incorporate the composition of Schroeder onto a paper based product, in the amount taught by Hsu et al, with the expectation of providing a suitable amount of the composition to provide a product that imparts benefits such as softness.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,552,020 to Smith et al, in view of WO 02/41869 to Hsu et al, published May 30, 2002.

Smith et al. teaches tissue products having improved bulk and softness by adding one or more softeners/debonders and a silicone glycol copolymer (see abstract, in particular.) Smith et al. teaches that the silicone glycol can comprise a chemical structure that corresponds to silicone glycol compounds recited in claim 2 (see column 1, line 65 through column 2, line 20, in particular.) Smith et al. furthermore teaches that softeners/debonders can comprise silicone quaternaries (see column 1, lines 32-40, in particular), and that the silicone quaternaries can comprise a chemical structure that corresponds to the silicon quaternary ammonium compounds recited in claim 3 (see column 6, lines 19-34, in particular.)

Smith et al. exemplifies providing an aqueous softener blend of 4 weight percent of a softener/debonder (quaternary ammonium compound) and 1 weight percent of a silicone glycol (see Example 1, in particular.) Thus, Smith et al. teaches providing a softener/debonder in a weight percentage range that meets the limitation of being from about 0.01% to about 20% by weight, and teaches providing the silicon glycol in a weight percentage that meets the limitation of being from about 0.01% to about 20% by weight, as recited in claim 1. Smith et al. does not exemplify silicone glycol and a

softener/debonder that specifically comprises a silicon quaternary ammonium compound in the recited weight percentages. However, as Smith et al. teaches that silicon quaternary ammonium compounds and quaternary ammonium compounds are among the compounds that can be provided as softener/debonders, it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the exemplified quaternary ammonium compound with the silicon quaternary ammonium compound in the amount taught by Smith et al, with the expectation of providing a suitable softener/debonder for the composition. Note that it is considered that "[I]t is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980.)

Furthermore, as Smith et al. teaches that the solution is aqueous, and teaches a combined net weight of softener/debonder and silicon glycol of only 5%, it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide water in an amount greater than about 40%, as recited in claim 1, and also greater than about 75%, as recited in claim 4, because Smith et al. teaches providing 95% by weight of an aqueous solution.

Regarding claims 17-18, Smith et al. exemplifies providing the composition on a sheet having a basis weight of 33.9 grams per square meter (see Example 1, in particular), and thus teaches providing a paper product having the basis weights recited in claims 17-18.

Smith et al. teaches efforts are continually being made to improve upon the various properties of tissue in order to provide better products for the consumer, and that softness is one of these properties (see column 1, lines 5-15, in particular.)

However, Smith et al. does not specifically teach providing an emollient in an amount between about 0.01% to about 20% by weight, as recited in claim 1. Smith et al. also does not specifically teach providing the fatty alcohol in the percent weight recited in claims 8-9. Smith furthermore does not specifically teach providing the emulsifier and skin conditioning agent having the percentage weights as recited in claims 10-14. Smith et al. also does not specifically teach that an add-on level of the entire composition in the range recited in claim 15, and also does not specifically teach providing an antimicrobial agent or preservative, as in claim 16.

Hsu et al. teaches a paper product with a lotion composition comprising an emollient in an amount up to 20% by weight of the lotion (see abstract, in particular.) Hsu et al. teaches that the emollient provides a number of benefits, including helping to maintain a smooth, pliable appearance of the skin and enhancing the ability of the skin

of users of the paper product to retain water (see paragraph bridging pages 5-6, in particular.) Regarding claim 5, Hsu et al. teaches that the emollient can be present in an amount of between about 1% to about 10% by weight of the lotion, which meets the limitation of being between about 0.01% to about 10% (see page 5, first full paragraph, in particular.) Regarding claims 6-7, Hsu et al. teaches that a suitable emollient can comprise a linear alkyl ester of benzoate, such as a C_{12}-C_{15} alkyl benzoate (see paragraph bridging pages 5-6, in particular.)

Regarding claims 8-9, Hsu et al. teaches that a fatty alcohol can be provided in the lotion composition in an amount of between about 10% by weight to about 30% by weight, which is considered to meet the limitation of being between "about" 0.01% to "about" 20% by weight as recited in claim 8. Hsu et al. furthermore teaches that suitable fatty alcohols can comprise cetyl alcohol, stearyl alcohol, and others, as recited in claim 9. Hsu et al. teaches that the fatty alcohols provide various benefits to the paper-based products, including retaining a greater amount of the lotion of the surface of the paper product to contact and transfer to the users skin, as well as allowing a lower add-on level which reduces the cost of the product (see page 6, first full paragraph, in particular.)

Hsu et al. furthermore teaches that the paper product can comprise an emulsifier to aid in dispersing water and oil phases of the lotion, which can be present in an amount of between about 5% to about 20% by weight of the lotion (see page 7, first full

paragraph), which meets the limitation of being between about 0.01% to about 20% as recited in claim 10. Hsu et al. teaches that suitable emulsifiers include steareth-2, steareth-20 and steareth-21 (see paragraph bridging pages 7 through 8, in particular), which are polyoxyethylene stearyl ethers, as recited in claim 11.

Hsu et al. also teaches that the lotion can comprise a skin conditioning agent in an amount of between about 10% to about 40% by weight (see page 9, first full paragraph, in particular), which is considered to meet the limitation of being from "about" 0.01% to "about" 20% by weight as recited in claim 12. Hsu et al. teaches that a suitable skin conditioning agent can comprise a humectant (see page 9, second full paragraph, in particular), as recited in claim 13. Hsu et al. teaches that a humectant can be provided to provide a number of benefits, including enhancing retention of moisture on the skin of a user of the paper product (see page 9, second full paragraph, in particular.) Hsu et al. furthermore teaches that a suitable humectant can comprise glycerin (see paragraph bridging pages 9 through 10, in particular.)

Regarding claim 16, Hsu et al. teaches that the composition can comprise an antimicrobial agent or preservative (see page 11, first full paragraph and page12, first full paragraph, in particular.) Hsu et al. teaches that the antimicrobial agent or preservative can be provided to disinfect a user's skin or to inhibit the growth of microbes thereon (see page 11, first full paragraph and page12, first full paragraph, in particular.)

Regarding claim 15, Hsu et al. teaches that a suitable add-on level of the lotion composition is between about 1% by weight to about 15% by weight of the paper product (see abstract, in particular), which meets the limitation of being between "about" 0.5% to "about" 10% by weight of the paper-based product as recited in the claim. Hsu et al. also teaches that the add-on level of the lotion can generally vary depending on the desired effect of the lotion on the product attributes and the specific composition.

Accordingly, one of ordinary skill in the art at the time the invention was made would have found it obvious to provide the emollient, fatty alcohol, emulsifier, humectant and antimicrobial agent or preservative of Hsu in the tissue product of Smith et al, because Smith et al. teaches providing a composition on a paper based product to improve the product, and furthermore teaches the desirability of improving upon the various properties of tissue to provide better products for the consumer, whereas Hsu et al. teaches a lotion having components that impart improved properties to the paper product. Thus, one of ordinary skill in the art would have been motivated to provide the emollient, fatty alcohol, humectant, etc, ingredients of Hsu et al. in the tissue paper product of Smith et al, with the expectation of providing a tissue product having improved properties, such as the ability to impart benefits including moisture retention to the skin.

One of ordinary skill in the art at the time the invention was made would furthermore have found it obvious to provide the composition as taught by Smith et al. and Hsu et al. in an add-on level as taught by Hsu et al, because Hsu et al. teaches that this is a suitable add-on level for providing a composition onto a paper-based product that imparts benefits to the skin, and Hsu et al. and Smith et al. are both concerned with providing compositions on the paper-based product for use as facial/bath tissues and on skin. Accordingly, one of ordinary skill would have been motivated to provide the composition of Smith et al. and Hsu et al. in the add-on level taught by Hsu et al. with the expectation of providing a paper-based product having the composition in an amount suitable for use of the product as facial/bath tissue and on skin.

Conclusion

No claims are allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In particular, U.S. Patent No. 5,558,873 to Funk et al, issued September 24, 1996, teaches a soft tissue having glycerin and a quaternary ammonium compound (see abstract, in particular.) EP 0 840 824 B1 teaches a method for making soft tissue paper, and teaches silicone quaternaries and silicone glycols as suitable ingredients (see pages 8-9, in particular.)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abigail M. Cotton whose telephone number is (571) 272-8779. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMC

SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER